

120-404USFE6143

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of: **Dominic Berta et al.**

Serial No.: **10/577,270**

Filed: **April 26, 2006**

For: **POLYPROPYLENE COMPOSITION**

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) Examiner: **Jeffrey Lenihan**  
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) Group Art Unit: **1765**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**DECLARATION UNDER 37 CFR § 1.132**

I, Giampaolo Pellegatti, declare as follows:

1. That in 1988 I received the degree of Doctor of Chemistry from the Faculty of Science of Ferrara University, in Italy.
2. That since 1989 I have been continuously employed by Basell Poliolefine Italia Srl or its predecessors, and in connection with such employment have been involved in research

activity in the field of the polyolefin industry, particularly devoted to the study of thermoplastic olefins and compounds.

3. That I am a co-inventor of 47 patents/patent applications in the field of polyolefins and processes for their preparation, and I have been co-author of some publications relating to the same field.

4. That I am familiar with the disclosure and claims of the above-identified U.S. Patent Application Serial No. 10/577,270 ("Present Application") entitled Polypropylene Composition."

5. That I am familiar with the disclosure of International Publication No. WO 03/051984 of Pelliconi et al. ("Pelliconi"), entitled Impact-Resistant Polyolefin Compositions, cited by the Examiner in the prosecution of the Present Application. In particular, I am familiar with the preparation of the catalyst used in Example 9 of Pelliconi and the polymerization conducted to produce the polymer of Example 9.

6. That under my supervision a sample of *Clyrell* EC340Q was obtained and analysed for physical and chemical properties. The test results are shown in Table 1. *Clyrell* EC340Q is a propylene heterophasic polymer having 30 wt% of a C<sub>2</sub>/C<sub>4</sub> rubber, and is produced with a Ziegler Natta catalyst. *Clyrell* EC340Q is commercially available from LyondellBasell Industries.

**Table 1.\***

Homopolimeric Phase (matrix component a)	70 wt%
Xylene solubility of crystalline phase	2 wt%
Rubber phase	30 wt%
1-butene derived units in rubber phase	24 wt%
Flex Mod (ISO 178)	1110 MPa
Young Tensile Mod (ISO 179)	1190 MPa
Izod (ISO 180)	
23°C	17 KJ/m <sup>2</sup>
0°C	4.8 KJ/m <sup>2</sup>
-20°C	3.7 KJ/m <sup>2</sup>

\* unless otherwise indicated, analysis was conducted according to test methods described in the Present Application

7. That one skilled in the art would readily recognize that in view of the results in Table 1, measurement of Izod at temperatures less than -20°C for *Clyrell* EC340Q, would result in values lower than 3.7 KJ/m<sup>2</sup>.

8. That because of the similarity in overall composition, rubber makeup, and catalyst used to produce them, one skilled in the art would readily recognize that Example 9 of Pelliconi and *Clyrell* EC340Q would respond similarly from an Izod-measurement standpoint. Therefore,

Example 9 of Pelliconi would be expected to have an Izod value lower than  $3.7 \text{ KJ/m}^2$  for a measurement taken at  $-30^\circ\text{C}$ .

9. That one skilled in the art would readily recognize that because of the similarity in rubber content and range of modulus (flexural/tensile), Example 9 of Pelliconi and Example 2 of the Present Application are comparable from an Izod-measurement standpoint.

10. That one skilled in the art would readily recognize that the value of Izod at  $-30^\circ\text{C}$  measured for Example 2 of the Present Application ( $6.7 \text{ KJ/m}^2$ ) is unexpectedly higher than a value lower than  $3.7 \text{ KJ/m}^2$ , attributable to Example 9 of Pelliconi, at an Izod measurement temperature of  $-30^\circ\text{C}$ .

11. I further declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true, having been informed that willful false statements and the like are punishable by fine or imprisonment, or both under 18 U.S.C. § 1001, and may jeopardize the validity of the application or any patent issuing thereon.

22/3/2012  
Date

Giampaolo Pellegatti

Dr. Giampaolo Pellegatti